

Mineral Industry Surveys

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LEAD IN OCTOBER 1999

Domestic mine production, based upon the net quantity of lead recovered in the smelting of concentrate, decreased by 5% in September compared with production in August. Data on mine production in October were not available at the time of publication. Secondary refinery production increased by 2% in October, but was down by about 2% compared with production in October 1998. Reported consumption was down by about 3% in October compared with revised data for September.

According to *Platt's Metals Week* published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price (U.S. dollars) declined in October, decreasing by 0.06% and 2.00%, respectively.

In North America, the lead supply remained tight during October and showed no signs of easing significantly through the end of the year. One factor contributing to the current tightness was the shortness in the secondary supply that has persisted since the earlier months of the year. Primary lead producers were able to fill some of this shortfall, but the strong demand for lead has reduced the inventories of many primary producers. Normally, these producers are increasing their stocks in preparation for the anticipated stronger demand during the winter months (Metal Bulletin, 1999c). In the European market, increased demand for lead in October was attributed somewhat to the restocking of finished batteries in preparation for the winter months. Reportedly, an adequate supply of lead still is available in the European market (CRU International Ltd., 1999).

National Defense Stockpile cash disposal (sale) of lead in October, the first month of fiscal year 2000, was 3,836 metric tons (4,228 short tons). The Defense National Stockpile Center's (DNSC) Annual Materials Plan for fiscal year 2000 includes a maximum sales offering for lead of 54,430 metric tons (60,000 short tons).

The DNSC recently announced the issuance of a long-term solicitation for the sale of lead in fiscal year 2000. The solicitation covers approximately 10,630 metric tons of chemical, common desilverized, corroding, and common grades of lead. Under the long-term solicitation procedure, the terms and conditions of the

sales are negotiated (U.S. Defense National Stockpile Center, 1999).

The U.S. Environmental Protection Agency (EPA) announced an additional extension of 45 days to the period for public comment on its proposed rule to lower the reporting threshold for lead and lead compounds under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and section 6607 of the Pollution Prevention Act of 1990. The proposed rule to which the extension applies also includes limitations on the reporting of lead when contained in certain alloys, as well as modifications to certain reporting exemptions and requirements for lead and lead compounds. As originally issued on August 3, 1999, the EPA was to have accepted comments on the proposed rule until September 17, 1999. On September 21, 1999, the EPA announced its first 45-day extension, accepting comments on the proposed rule until November 1, 1999. Under the latest extension, the new closure date was changed to December 16, 1999 (U.S. Environmental Protection Agency, 1999a). In conjunction with this extension, the EPA also announced that it would hold public meetings in Los Angeles, CA, Chicago, IL, and Washington, DC, to obtain further comments on the proposed rule (U.S. Environmental Protection Agency, 1999c). As part of this proposed rulemaking process, the EPA will address the issue of reporting thresholds for persistent bioaccumulative toxic (PBT) chemicals, as it pertains to the alkyl lead compounds tetraethyl lead and tetramethyl lead. The EPA recently issued its final rule on the reporting thresholds for certain PBT chemicals, excluding any final action on these alkyl lead compounds (U.S. Environmental Protection Agency, 1999b).

GNB Technologies, Inc., Atlanta, GA, ceased production at its Columbus, GA, secondary lead smelter in October, as it previously had announced in late August. However, a company spokesperson indicated that the facility could still be reopened should there be a sufficient rise in lead prices. It was also noted by the company that there were no current plans to sell the smelter. The facility was opened about 4 years ago, but failed to reach its full production capacity of about 82,000 metric tons (90,000 short tons) per year

(Metal Bulletin, 1999a).

GNB Technologies also announced that it has signed a long-term technology partnership with Optima Batteries, a subsidiary of the Gylling Group, Stockholm, Sweden, to develop and market spiral-wound, valve-regulated, lead-acid batteries for automotive, marine, and heavy-duty applications. The partnership will combine GNB's technical infrastructure and customer base with the Optima SpiralCell Technology. Optima Batteries currently operates a battery manufacturing plant in Aurora, CO, which produces specialty and high-performance batteries (Platt's Metals Week, 1999). In another action taken by GNB, the company reported that it plans to close the St. Paul, MN, office at the end of May, 2000, moving the technology and the research and development activities to its Lombard, IL, facilities. The automotive design group and some administrative functions will be relocated to GNB's corporate headquarters in Atlanta, GA (Metal Bulletin, 1999b).

Atna Resources, Vancouver, Canada, recently ended its involvement in the Dry Creek and Anderson Mountain development project 60 miles south of Fairbanks, AK. Atna was a joint venture partner with Grayd Resources, Vancouver, in the project. Initial drilling results revealed mineralization grade ranging from 0.34% to 2.5% lead, and 1.4% to 6.0% zinc. However, the drill program failed to meet Atna's required objectives for outlining a large deposit (Northern Miner, 1999).

References Cited

- CRU International Ltd., 1999, European demand up, but lackluster: CRU Monitor—Lead, October, p. 3.
- Metal Bulletin, 1999a, Columbus lead smelter is mothballed, no plans to sell: Metal Bulletin, no. 8415, October 7, p. 10.
- 1999b, GNB to close Minnesota office: Metal Bulletin, no. 8417, October 14, p. 12.
- 1999c, Lead tightens further, 2000 premiums expected to soar: Metal Bulletin, no. 8414, October 4, p. 5.
- Northern Miner, 1999, Atna drops Dry Creek project in Alaska: Northern Miner, v. 85, no. 34, October 18-24, p. 13.
- Platt's Metals Week, 1999, GNB, Optima in battery pact: Platt's Metals Week, v. 70, no. 41, October 11, p. 11.
- U.S. Defense National Stockpile Center, 1999, Stockpile issues long-term lead solicitation: Fort Belvoir, VA, U.S. Defense National Stockpile news release, December 3, 1 p.
- U.S. Environmental Protection Agency, 1999a, Lead and lead compounds—Lowering of reporting thresholds—Community right-to-know toxic chemical release reporting—Extension of comment period: Federal Register, v. 64, no. 209, October 29, p. 58370-58372.
- 1999b, Persistent Bioaccumulative Toxic (PBT) chemicals; Final rule: Federal Register, v. 64, no. 209, October 29, p. 58665-58753.
- 1999c, Lead and lead compounds—Lowering of reporting thresholds—Community right-to-know toxic chemical release reporting—Public meetings: Federal Register, v. 64, no. 219, November 15, p. 61807-61810.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1998		1999		
	Year total	January - October	September	October	January - October
Production:					
Mine (recoverable)	481,000	367,000	41,500	NA	391,000 2/
Primary refinery	337,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,100,000	898,000	89,500	91,300	870,000
Estimated	--	15,300	904	923	12,500
Recovered from copper-base scrap e/	16,800	12,500	1,250	1,250	12,500
Total secondary	1,120,000	926,000	91,600	93,500	895,000
Stocks, end of period:					
Primary refineries	10,900 3/	XX	NA	NA	XX
Secondary smelters and consumers	77,300 3/	XX	66,200 r/	66,400	XX
Imports for consumption:					
Ore and concentrates (lead content)	32,700	21,200	--	NA	9,430 2/
Refined metal	267,000	214,000	26,200	NA	207,000 2/
Consumption:					
Reported	1,630,000	1,260,000 r/	134,000 r/	129,000	1,320,000
Undistributed e/	--	38,900 r/	7,030 r/	6,810	69,400
Total	1,630,000	1,300,000 r/	141,000 r/	136,000	1,390,000
Exports (lead content):					
Ore and concentrates	72,400	66,300	26,800	NA	74,000 2/
Bullion	51,600	39,700	4,170	NA	45,600 2/
Materials excluding scrap	39,600	33,200	2,760	NA	29,000 2/
Ash and residues	9,030	6,790	19	NA	1,280 2/
TEL/TML preparations, based on lead compounds	3,180	2,700	30	NA	1,880 2/
Exports (gross weight): Scrap	99,200	82,000	13,100	NA	85,300 2/
Platt's Metals Week North American producer price (cents per pound)	45.27	45.53	43.73	43.70	43.73

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Includes data for January - September only; October data not available at time of publication.

3/ Stocks at end of year.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1998:				
October	45.86	492.47	290.64	1.694420
January - October	45.53	534.40	322.93	1.655315
Year	45.27	528.22	318.86	1.657086
1999:				
July	43.70	495.46	314.56	1.575086
August	43.72	502.66	312.97	1.606100
September	43.73	506.91	312.00	1.624686
October	43.70	496.75	299.76	1.657170
January - October	43.73	507.03	313.42	1.618103

Source: Platt's Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN OCTOBER 1999 1/

(Metric tons, gross weight)

Item	Stocks September 30, 1999 r/	Net receipts	Consumption	Stocks October 31, 1999
Battery-lead	20,500	103,000	102,000	21,000
Soft lead	W	W	W	W
Drosses and residues	3,430	4,700	5,020	3,110
Other 2/	1,680	1,710	1,520	1,880
Total	25,600	109,000	109,000	26,000
Percent change from preceding month	XX	-0.4	-4.1	+1.8

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE
SCRAP IN OCTOBER 1999 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	52,900	--	--
Remelt lead	W	W	W
Antimonial lead	37,900	W	W
Other 2/	W	W	--
Total lead-base	91,300	101	388

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1998		1999		
	Year total	January - October	September	October	January - October
Metal products:					
Ammunition, shot and bullets	52,800	32,300 r/	4,050	2,860	35,200
Brass and bronze, billet and ingots	3,460	3,060 r/	316	335	3,180
Cable covering, power and communication and cabling lead, building construction	5,980	4,740 r/	161	204	2,200
Casting metals	32,600	4,500 r/	384	363	3,910
Pipes, traps, and other extruded products	W	W	W	W	W
Sheet lead	18,700	14,300 r/	1,310	1,310	13,500
Solder	10,900	5,920	701	779	7,930
Storage batteries, including oxides	1,430,000	1,130,000 r/	121,000 r/	118,000	1,200,000
Terne metal, type metal, and other metal products 2/	10,400	7,430 r/	880 r/	212	2,780
Total metal products	1,560,000	1,200,000 r/	129,000 r/	124,000	1,260,000
Other oxides	(3/)	(3/)	(3/)	(3/)	(3/)
Miscellaneous uses	69,000	58,200 r/	4,980	4,940	53,800
Total reported	1,630,000	1,260,000 r/	134,000 r/	129,000	1,320,000
Undistributed consumption e/	--	38,900 r/	7,030 r/	6,810	69,400
Grand total	1,630,000	1,300,000 r/	141,000 r/	136,000	1,390,000

e/ Estimated. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Sheet lead."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

3/ Withheld to avoid disclosing company proprietary data; included with "Miscellaneous uses."

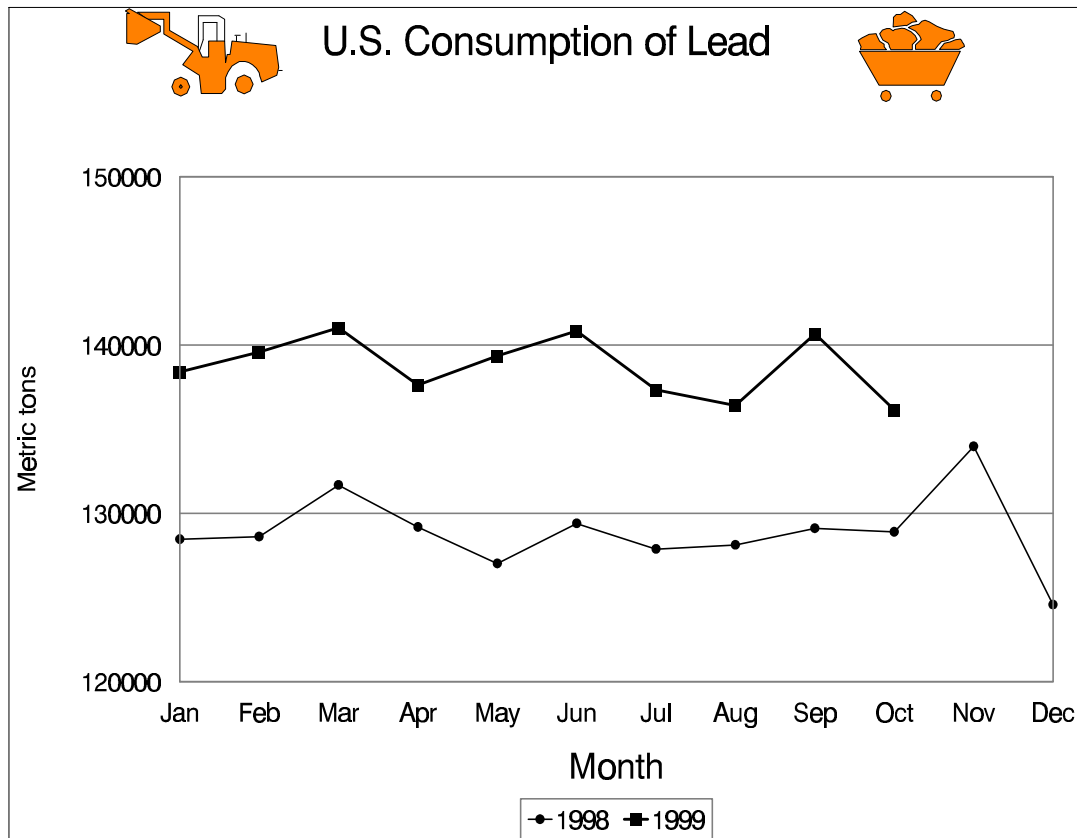


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN OCTOBER 1999 1/

(Metric tons, lead content)

Type of material	Stocks September 30, 1999 r/	Net receipts	Consumption	Stocks October 31, 1999
Soft lead	26,300	74,500	74,300	26,500
Antimonial lead	23,400	32,200	31,500	24,100
Lead alloys	W	22,500	23,300	W
Copper-base scrap	W	232	228	W
Total	66,200	129,000	129,000	66,400

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1998		1999		
	Year total	September	August	September	January - September
Lead content:					
Ore and concentrates	72,400	13,600	10,700	26,800	74,000
Bullion	51,600	3,970	5,900	4,170	45,600
Materials excluding scrap	39,600	3,430	5,550	2,760	29,000
Ash and residues	9,030	581	86	19	1,280
TEL/TML preparations, based on lead compounds	3,180	606	59	30	1,880
Total	176,000	22,200	22,300	33,800	152,000
Gross weight: Scrap	99,200	8,690	9,970	13,100	85,300

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1998		1999			1998		1999		
	Year total	January - September	August	September	January - September	Year total	January - September	August	September	January - September
Ore, matte, etc.:										
Canada	32,000	32,000	(2/)	--	1,220	6,540	6,540	(2/)	--	(2/)
Mexico	--	--	806	217	1,800	--	--	806	--	1,580
Peru	35,800	23,400	882	1,660	5,800	18,500	7,000	193	--	193
Other	21,000	13,400 r/	5,990	--	19,400	7,670	7,650	5,720	--	7,660
Total	88,800	68,800	7,680	1,870	28,200	32,700	21,200	6,710	--	9,430
Base bullion:										
Dominican Republic	464	391	2	--	2	464	391	2	--	2
Pigs and bars:										
Australia	--	--	2,000	--	13,200	--	--	2,000	--	13,200
Canada	181,000	133,000	16,200	17,800	148,000	181,000	133,000	16,200	17,800	148,000
China	8,010	66	6,680	7,140	15,400	8,010	66	6,680	7,140	15,600
Germany	135	62	59	66	502	135	62	59	66	502
Mexico	63,600	53,000	528	959	22,900	63,600	53,000	528	959	22,900
Peru	11,400	4,900	--	--	2,650	11,400	4,900	--	--	2,650
Other	2,160	1,490 r/	211	186	3,670	2,160	1,490 r/	211	186	3,670
Total	267,000	192,000	25,700	26,200	206,000	267,000	192,000	25,700	26,200	207,000
Reclaimed scrap, including ash and residues	(2/)	(2/)	--	--	--	(2/)	(2/)	--	--	--
Grand total	356,000	261,000	33,400	28,100	235,000	300,000	214,000	32,400	26,200	216,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.